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The Conference Board

Economic and Business Environment Program

MONTHLY UPDATE TO

# International Economic Scoreboard

A Monthly Report from The Conference Board — September 1988

## GLOBAL EXPANSION PERKS ALONG
## —No Sign of Either Recession or Runaway Boom

### SUMMARY

*Worldwide,* the latest figures show the economic outlook to have brightened modestly, although the slower growth in the composite leading index has not disappeared.

*Regionally,* there's very little to choose among the three main geographic areas. The indexes for the Pacific Region look a bit stronger than the others on economic performance but a bit slower for the leaders.

*Nationally,* except for Japan, the leading index for each country is now above the level it reached prior to last year's stock market crash. In Japan the stock price index itself has surpassed its 1987 peak but some of the other leading indicators still show weakness.

*Interpretation.* The long cyclical expansion in the industrial countries continues to move forward at a respectable pace. Recession is nowhere in sight, and neither is runaway boom.

**Summary Of Growth Rates, Ten Industrial Countries**

| | Ten-year Growth Rate | Indexes of Economic Performance Growth Rates* | | | Leading Business Cycle Indexes Growth Rates* | | | Current Reading on the Cycle | Latest Month Covered |
|---|---|---|---|---|---|---|---|---|---|
| | 1976-86 | 6 mos. ago | 3 mos. ago | Latest month | 6 mos. ago | 3 mos. ago | Latest month | | |
| | annual rates, percent | | | | | | | | |
| Ten countries | 3 | 6 | 7 | 6 | 5 | 3 | 4 | Expansion continuing | June |
| 9 countries excl. U.S. | 3 | 6 | 7 | 6 | 6 | 4 | 4 | Expansion continuing | June |
| North America (2) | 3 | 6 | 6 | 5 | 3 | 3 | 5 | Expansion continuing | June |
| Europe (4) | 2 | 5 | 6 | 5 | 1 | 3 | 5 | Expansion continuing | June |
| Pacific Region (4) | 4 | 8 | 10 | 8 | 12 | 3 | 3 | Expansion continuing | June |
| United States | 3 | 5 | 5 | 5 | 3 | 2 | 2 | Expansion continuing | July |
| Canada | 3 | 7 | 6 | 4 | 5 | 6 | 5 | Expansion continuing | June |
| West Germany | 2 | 4 | 4 | 4 | 2 | 6 | 6 | Expansion continuing | June |
| France | 2 | 6 | 6 | 6 | 2 | 2 | 6 | Expansion continuing | June/July |
| United Kingdom | 2 | 7 | 7 | 5 | 0 | 1 | 2 | Expansion continuing, leaders weak | June |
| Italy | 2 | 3 | 5 | 6 | -2 | 1 | 3 | Expansion continuing | Apr./June |
| Japan | 4 | 7 | 9 | 8 | 13 | 2 | 2 | Expansion continuing, leaders weak | June |
| Australia | 3 | 7 | 9 | 10 | 5 | 6 | 8 | Expansion continuing | June |
| Taiwan, R.O.C. | 8 | 3 | 3 | 3 | 9 | 13 | 13 | Expansion continuing, leaders strong | July |
| Korea, R.O.K. | 7 | 16 | 18 | 7 | 15 | 15 | 13 | Expansion continuing, leaders strong | June |

* Ratio of current month's index to average index over the preceding 12 months, expressed as a compound annual rate.

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## INDEXES, WORLDWIDE AND BY REGION, 1987-88

| | | 10 Countries | | 9 Countries excl. U.S. | | North America (2) | | Europe (4) | | Pacific Region (4) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Indexes, 1980 = 100 | | | | | | | | | |
| | | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. |
| Jan. | 87 | 115 | 122 | 116 | 120 | 114 | 123 | 109 | 115 | 129 | 130 |
| Feb. | 87 | 116 | 124 | 117 | 121 | 116 | 126 | 109 | 115 | 129 | 131 |
| Mar. | 87 | 116 | 125 | 117 | 123 | 116 | 127 | 109 | 116 | 130 | 136 |
| Apr. | 87 | 117 | 127 | 118 | 126 | 116 | 128 | 110 | 116 | 129 | 141 |
| May | 87 | 117 | 128 | 118 | 127 | 116 | 128 | 110 | 116 | 129 | 146 |
| June | 87 | 118 | 131 | 118 | 130 | 117 | 131 | 111 | 117 | 131 | 152 |
| July | 87 | 118 | 132 | 119 | 132 | 118 | 131 | 111 | 117 | 132 | 156 |
| Aug. | 87 | 119 | 133 | 120 | 134 | 118 | 131 | 111 | 118 | 132 | 163 |
| Sept. | 87 | 120 | 133 | 120 | 134 | 119 | 132 | 112 | 118 | 134 | 162 |
| Oct. | 87 | 120 | 133 | 121 | 133 | 120 | 132 | 112 | 118 | 134 | 160 |
| Nov. | 87 | 121 | 132 | 122 | 132 | 120 | 131 | 113 | 117 | 135 | 157 |
| Dec. | 87 | 122 | 132 | 122 | 132 | 121 | 131 | 113 | 117 | 136 | 156 |
| Jan. | 88 | 122 | 132 | 123 | 132 | 121 | 131 | 114 | 118 | 137 | 156 |
| Feb. | 88 | 123 | 132 | 124 | 132 | 122 | 132 | 114 | 119 | 140 | 155 |
| Mar. | 88 | 124 | 133 | 125 | 133 | 122 | 133 | 115 | 120 | 140 | 156 |
| Apr. | 88 | 124 | 133 | 124 | 133 | 122 | 132 | 115 | 119 | 139 | 158 |
| May | 88 | 124 | 133 | 125 | 134 | 123 | 132 | 115 | 120 | 139 | 158 |
| June | 88 | 125 | 136 | 126 | 136 | 124 | 135 | 116 | 121 | 142 | 160 |

| 10 Countries | | 9 Countries excl. U.S. | | North America (2) | | Europe (4) | | Pacific Region (3) | |
|---|---|---|---|---|---|---|---|---|---|
| Growth Rates, Percent | | | | | | | | | |
| Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. |
| 3 | 6 | 3 | 8 | 2 | 3 | 3 | 4 | 5 | 17 |
| 4 | 8 | 3 | 9 | 4 | 7 | 3 | 4 | 4 | 17 |
| 3 | 10 | 3 | 11 | 4 | 8 | 3 | 4 | 4 | 22 |
| 4 | 11 | 3 | 13 | 4 | 9 | 3 | 5 | 3 | 28 |
| 3 | 12 | 3 | 14 | 4 | 8 | 3 | 4 | 2 | 31 |
| 4 | 15 | 4 | 17 | 4 | 11 | 3 | 5 | 4 | 38 |
| 5 | 14 | 5 | 17 | 5 | 10 | 4 | 5 | 6 | 39 |
| 5 | 15 | 5 | 19 | 5 | 9 | 4 | 4 | 5 | 43 |
| 5 | 13 | 5 | 16 | 5 | 8 | 4 | 4 | 6 | 35 |
| 6 | 10 | 6 | 12 | 6 | 7 | 5 | 3 | 7 | 27 |
| 6 | 6 | 6 | 8 | 6 | 4 | 5 | 1 | 7 | 17 |
| 6 | 5 | 6 | 6 | 6 | 3 | 5 | 1 | 8 | 12 |
| 6 | 4 | 6 | 5 | 5 | 3 | 5 | 2 | 8 | 9 |
| 7 | 3 | 7 | 4 | 6 | 3 | 5 | 3 | 11 | 5 |
| 7 | 3 | 7 | 4 | 6 | 3 | 6 | 3 | 10 | 3 |
| 5 | 3 | 6 | 3 | 5 | 2 | 5 | 3 | 7 | 3 |
| 5 | 2 | 5 | 3 | 5 | 1 | 4 | 4 | 6 | 1 |
| 6 | 4 | 6 | 4 | 5 | 5 | 5 | 5 | 8 | 3 |
| Ten Year Annual Growth Rate, Percent | | | | | | | | | |
| 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 4 |

## INDEXES, TEN COUNTRIES, 1987-88

| | | U.S. | | Canada | | West Germany | | France | | U.K. | | Italy | | Japan | | Australia | | Taiwan, R.O.C. | | Korea, R.O.K. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Indexes, 1980 = 100 | | | | | | | | | | | | | | | | | | | |
| | | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. |
| Jan. | 87 | 114 | 124 | 118 | 117 | 108 | 113 | 113 | 117 | 106 | 115 | 107 | 115 | 127 | 128 | 119 | 116 | 158 | 169 | 172 | 171 |
| Feb. | 87 | 115 | 127 | 119 | 118 | 108 | 114 | 113 | 117 | 107 | 115 | 107 | 115 | 127 | 129 | 120 | 116 | 162 | 174 | 176 | 181 |
| Mar. | 87 | 115 | 128 | 120 | 119 | 109 | 114 | 114 | 118 | 107 | 115 | 107 | 115 | 127 | 135 | 120 | 117 | 160 | 174 | 179 | 180 |
| Apr. | 87 | 116 | 129 | 121 | 120 | 109 | 114 | 114 | 120 | 108 | 115 | 108 | 116 | 127 | 141 | 121 | 118 | 163 | 180 | 178 | 182 |
| May | 87 | 116 | 129 | 122 | 120 | 109 | 114 | 115 | 120 | 108 | 116 | 108 | 116 | 126 | 146 | 122 | 120 | 163 | 181 | 179 | 183 |
| June | 87 | 117 | 132 | 122 | 121 | 110 | 115 | 116 | 120 | 108 | 116 | 108 | 116 | 128 | 154 | 123 | 120 | 165 | 182 | 182 | 188 |
| July | 87 | 117 | 132 | 122 | 121 | 110 | 116 | 116 | 121 | 109 | 117 | 108 | 116 | 129 | 158 | 125 | 121 | 168 | 183 | 182 | 189 |
| Aug. | 87 | 118 | 132 | 123 | 122 | 110 | 117 | 116 | 121 | 110 | 117 | 107 | 114 | 130 | 166 | 124 | 122 | 170 | 187 | 181 | 182 |
| Sept. | 87 | 118 | 133 | 124 | 124 | 111 | 116 | 117 | 122 | 110 | 117 | 108 | 115 | 131 | 164 | 125 | 123 | 171 | 192 | 187 | 197 |
| Oct. | 87 | 119 | 132 | 125 | 122 | 111 | 116 | 118 | 121 | 111 | 117 | 109 | 115 | 132 | 162 | 125 | 123 | 171 | 194 | 185 | 188 |
| Nov. | 87 | 120 | 131 | 126 | 123 | 111 | 115 | 118 | 121 | 112 | 116 | 109 | 115 | 132 | 158 | 125 | 122 | 171 | 192 | 190 | 195 |
| Dec. | 87 | 120 | 132 | 126 | 123 | 112 | 116 | 119 | 122 | 112 | 116 | 109 | 114 | 134 | 157 | 127 | 123 | 170 | 193 | 195 | 198 |
| Jan. | 88 | 120 | 132 | 126 | 125 | 112 | 118 | 119 | 122 | 113 | 117 | 111 | 114 | 134 | 157 | 127 | 122 | 168 | 192 | 200 | 202 |
| Feb. | 88 | 121 | 133 | 127 | 125 | 112 | 120 | 120 | 122 | 113 | 116 | 112 | 115 | 137 | 158 | 128 | 123 | 175 | 197 | 204 | 201 |
| Mar. | 88 | 122 | 133 | 127 | 126 | 113 | 120 | 121 | 124 | 114 | 117 | 112 | 116 | 137 | 156 | 130 | 125 | 171 | 201 | 204 | 206 |
| Apr. | 88 | 122 | 133 | 127 | 126 | 112 | 120 | 121 | 122 | 114 | 116 | 113 | 116 | 136 | 158 | 128 | 126 | 171 | 202 | 200 | 201 |
| May | 88 | 122 | 132 | 126 | 125 | 113 | 121 | 121 | 124 | 115 | 117 | | 116 | 136 | 158 | 128 | 128 | 172 | 206 | 196 | 202 |
| June | 88 | 123 | 136 | 128 | 127 | 114 | 122 | 122 | 127 | 115 | 118 | | 117 | 139 | 160 | 133 | 128 | 174 | 206 | 200 | 210 |
| July | 88 | 124 | 134 | | | | | | 126 | | | | | | | | | 174 | 209 | | |
| Growth Rates, Percent | | | | | | | | | | | | | | | | | | | | | |
| Jan. | 87 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 5 | 3 | 5 | 2 | 2 | 4 | 19 | 0 | 7 | 13 | 12 | 14 | 10 |
| Feb. | 87 | 4 | 8 | 4 | 4 | 2 | 4 | 3 | 4 | 4 | 5 | 1 | 2 | 3 | 18 | 2 | 7 | 15 | 15 | 15 | 20 |
| Mar. | 87 | 4 | 8 | 4 | 5 | 2 | 4 | 3 | 5 | 4 | 5 | 1 | 3 | 3 | 25 | 1 | 8 | 11 | 13 | 17 | 15 |
| Apr. | 87 | 4 | 9 | 5 | 7 | 3 | 4 | 4 | 7 | 4 | 4 | 2 | 4 | 2 | 31 | 3 | 9 | 13 | 18 | 13 | 15 |
| May | 87 | 4 | 8 | 6 | 6 | 2 | 3 | 4 | 6 | 4 | 5 | 2 | 2 | 1 | 35 | 4 | 10 | 11 | 17 | 12 | 13 |
| June | 87 | 4 | 11 | 6 | 6 | 3 | 4 | 5 | 6 | 5 | 4 | 2 | 3 | 3 | 44 | 6 | 8 | 11 | 15 | 13 | 16 |
| July | 87 | 5 | 10 | 6 | 6 | 3 | 6 | 5 | 6 | 5 | 4 | 1 | 2 | 5 | 45 | 7 | 8 | 12 | 14 | 12 | 16 |
| Aug. | 87 | 5 | 9 | 6 | 6 | 3 | 6 | 5 | 6 | 6 | 4 | -1 | -1 | 5 | 50 | 6 | 9 | 13 | 16 | 9 | 5 |
| Sept. | 87 | 5 | 8 | 6 | 8 | 3 | 5 | 5 | 7 | 6 | 4 | 1 | 0 | 6 | 39 | 7 | 10 | 12 | 20 | 13 | 20 |
| Oct. | 87 | 6 | 7 | 7 | 4 | 3 | 4 | 6 | 4 | 6 | 3 | 3 | 0 | 6 | 30 | 5 | 8 | 10 | 18 | 9 | 8 |
| Nov. | 87 | 5 | 4 | 7 | 6 | 4 | 1 | 5 | 3 | 7 | 1 | 3 | -1 | 7 | 19 | 5 | 5 | 8 | 13 | 12 | 14 |
| Dec. | 87 | 6 | 3 | 7 | 5 | 4 | 2 | 6 | 3 | 7 | 0 | 3 | -2 | 7 | 13 | 7 | 5 | 6 | 12 | 16 | 15 |
| Jan. | 88 | 5 | 3 | 6 | 6 | 3 | 5 | 5 | 2 | 7 | 2 | 5 | -2 | 8 | 9 | 6 | 3 | 3 | 9 | 18 | 16 |
| Feb. | 88 | 6 | 3 | 6 | 5 | 4 | 7 | 6 | 3 | 7 | 0 | 6 | -1 | 10 | 4 | 7 | 4 | 10 | 11 | 20 | 13 |
| Mar. | 88 | 6 | 3 | 6 | 5 | 4 | 6 | 6 | 4 | 7 | 1 | 6 | 1 | 9 | 2 | 9 | 6 | 3 | 14 | 18 | 15 |
| Apr. | 88 | 6 | 2 | 5 | 5 | 3 | 6 | 5 | 2 | 6 | 0 | 6 | 1 | 7 | 2 | 4 | 6 | 3 | 13 | 11 | 8 |
| May | 88 | 5 | 0 | 5 | 3 | 3 | 7 | 5 | 4 | 6 | 1 | | 2 | 6 | 0 | 4 | 8 | 3 | 14 | 6 | 7 |
| June | 88 | 6 | 5 | 4 | 5 | 4 | 6 | 6 | 7 | 5 | 2 | | 3 | 8 | 2 | 10 | 8 | 4 | 12 | 7 | 13 |
| July | 88 | 5 | 2 | | | | | | 6 | | | | | | | | | 3 | 13 | | |
| Ten Year Annual Growth Rate, Percent | | | | | | | | | | | | | | | | | | | | | |
| 1976-86 | | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 8 | 8 | 7 | 7 |

# 2ND QTR.

# 1988

R4105-6
11/23/88

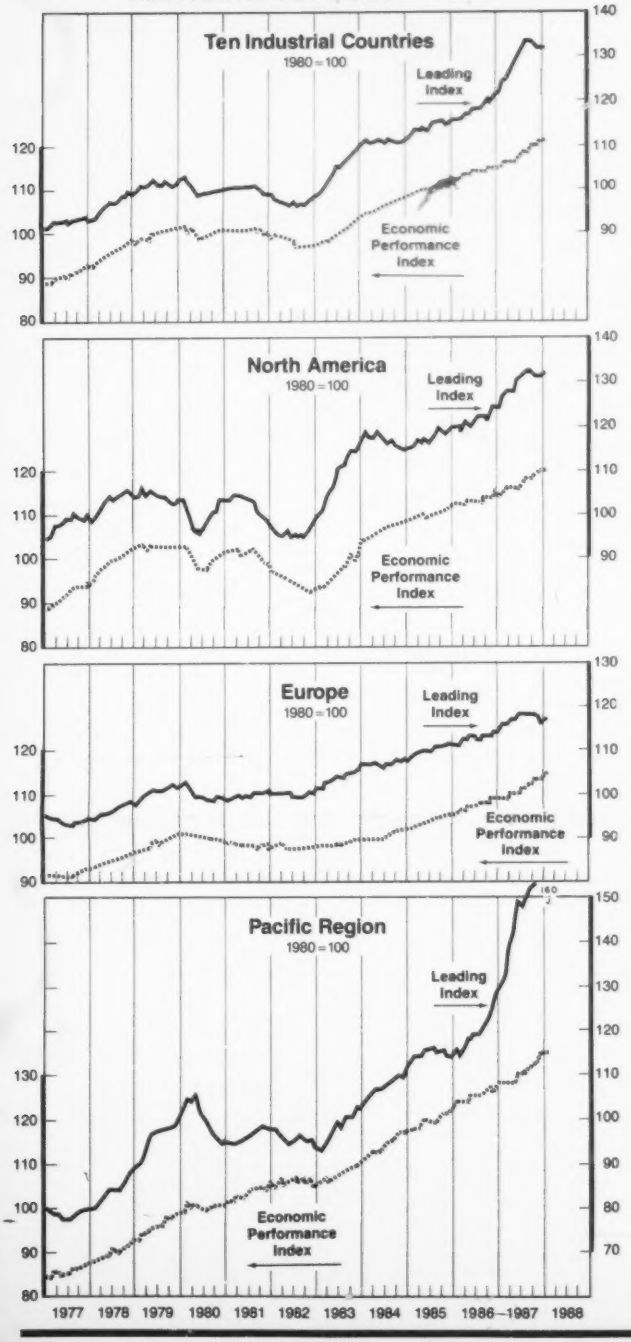
The Conference Board

**Economic and Business Environment Program**

# International Economic Scoreboard

**A Quarterly Report from The Conference Board** — **Second Quarter**

## WORLD BUSINESS CYCLE




The major industrial economies continue to advance at a good clip. The leading indexes, however, have not recovered their losses of last October-November when the world's stock markets took a nose-dive. Thus we still have reason to worry about the sustainability of the cyclical expansion.

Close examination of the data shows that in almost every major country around the world all of the decline in the leading indexes since last September can be traced to the plunge in equity prices. In fact, if the composite leading indexes for each region and for the ten countries are recalculated after deleting stock prices as a component series, the new composites would show continued growth since September, thus pointing to further economic expansion ahead.

Which signal should we believe? The "regular" leading indexes, with their cautionary messages? Or the more optimistic tidings from the composite leaders that have been purged of stock prices? There is no clearly right or wrong answer. The stock price series is a reliable leading indicator. It was selected to be a component of the composite leading index because it has an excellent historical record of moving in advance of the business cycle. But, like all the component series, its performance as a leading indicator is less than perfect. On occasion, it turns when the economy does not, or vice versa. Of late most forecasters are betting that this is one of those occasions when the plunge in stock prices does not signal trouble ahead for the economy. The fact that a slight majority of the other leaders (the component indicators for all ten countries) have continued to rise since September provides modest support for this more hopeful interpretation. But the outcome is still unclear. Forecasters cannot dismiss all their worries. They still have to pay their money and take their chances.

Regionally, the pattern of the past year continues to hold: The performance indexes are rising at about the same rate in each area, but the leading indexes suggest the expansion will gain strength in the Pacific region and lose momentum in Europe.

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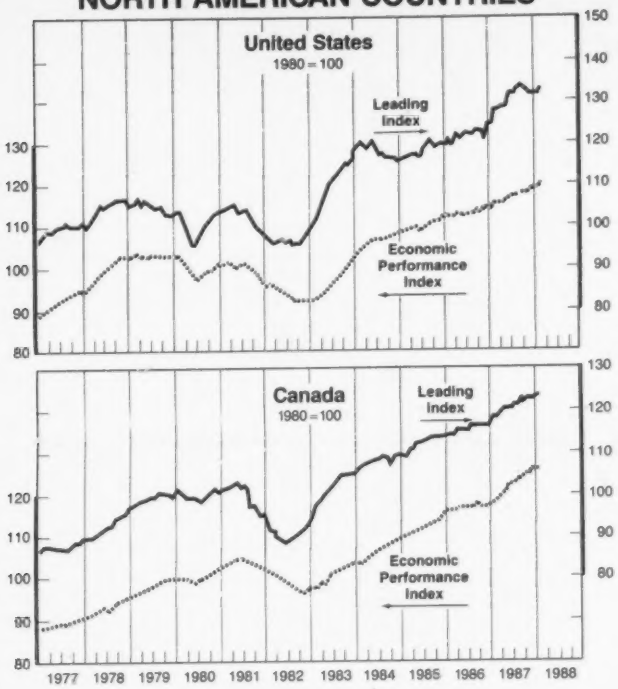
## NORTH AMERICAN COUNTRIES




The U.S. business cycle continues to advance at a sturdy 5 percent rate. Since the September-October drop, the leading index has leveled off, with all the components moving in a rather choppy, indecisive fashion. Thus, here too, the outlook signals are mixed.

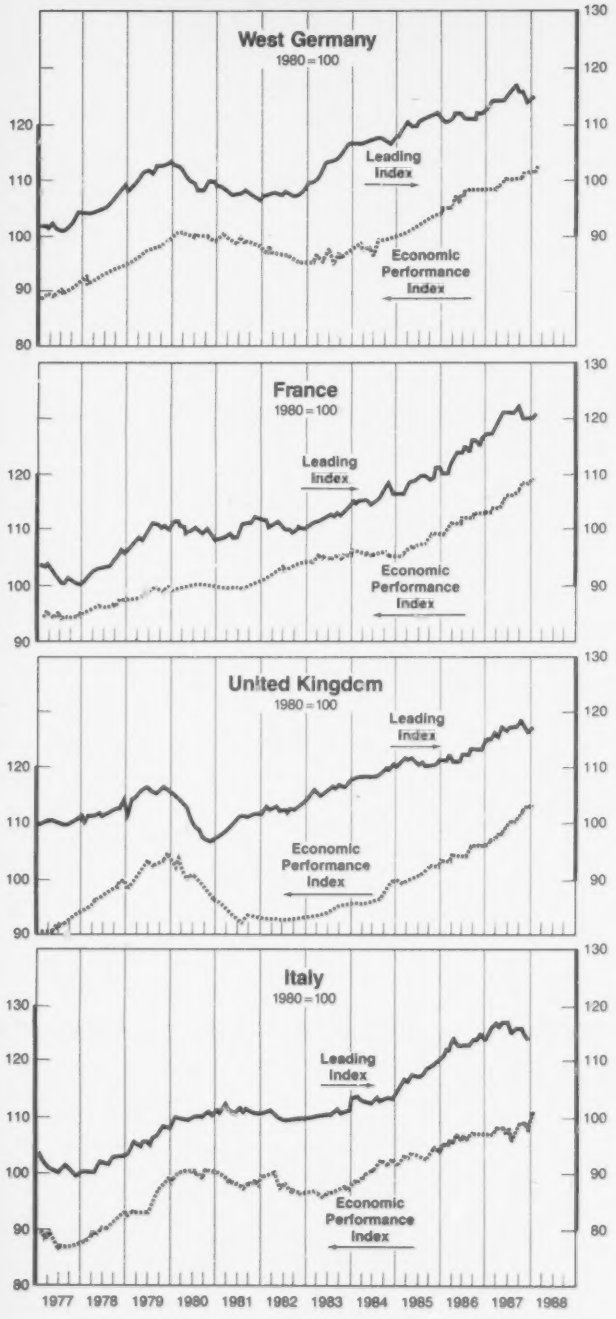
The Canadian outlook is a bit more bullish than most, in that the leading index has recovered to a new record high.

### Summary Of Growth Rates, Ten Industrial Countries

| | Ten-year Growth Rate | Indexes of Economic Performance Growth Rates* | | | Leading Business Cycle Indexes Growth Rates* | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 6 mos. ago | 3 mos. ago | Latest month | 6 mos. ago | 3 mos. ago | Latest month | Current Reading on the Cycle | Latest Month Covered |
| | 1976-86 | annual rates, percent | | | | | | | |
| Ten countries | 3 | 4 | 5 | 5 | 14 | 10 | 4 | Expansion continuing | Jan. |
| 9 countries excl. U.S. | 3 | 4 | 5 | 5 | 18 | 12 | 5 | Expansion continuing | Jan. |
| North America (2) | 3 | 4 | 5 | 5 | 9 | 7 | 3 | Expansion continuing | Jan. |
| Europe (4) | 2 | 4 | 4 | 5 | 5 | 3 | 0 | Expansion continuing, leaders weak | Jan. |
| Pacific Region (4) | 4 | 5 | 6 | 6 | 39 | 26 | 13 | Expansion continuing, leaders strong | Jan. |
| United States | 3 | 4 | 5 | 5 | 10 | 5 | 3 | Expansion continuing | Feb. |
| Canada | 3 | 5 | 7 | 6 | 5 | 4 | 6 | Expansion continuing | Jan. |
| West Germany | 2 | 3 | 4 | 3 | 5 | 4 | 0 | Expansion continuing, leaders weak | Feb./Jan. |
| France | 2 | 5 | 5 | 5 | 6 | 2 | 1 | Expansion continuing, leaders weak | Jan./Feb. |
| United Kingdom | 2 | 6 | 6 | 7 | 5 | 4 | 2 | Expansion continuing, leaders weak | Jan. |
| Italy | 2 | 1 | 4 | 6 | 4 | 1 | 2 | Expansion continuing, leaders weak | Jan./Dec. |
| Japan | 4 | 3 | 6 | 9 | 45 | 30 | 13 | Expansion continuing, leaders strong | Feb./Jan. |
| Australia | 3 | 7 | 6 | 9 | 12 | 5 | 3 | Expansion continuing | Feb. |
| Taiwan, R.O.C. | 8 | 13 | 8 | 9 | 16 | 13 | 13 | Expansion continuing, leaders strong | Feb. |
| Korea, R.O.K. | 7 | 11 | 12 | 17 | 14 | 9 | 24 | Expansion continuing, leaders strong | Jan. |

* Ratio of current month's index to average index over the preceding 12 months, expressed as a compound annual rate.

## EUROPEAN COUNTRIES



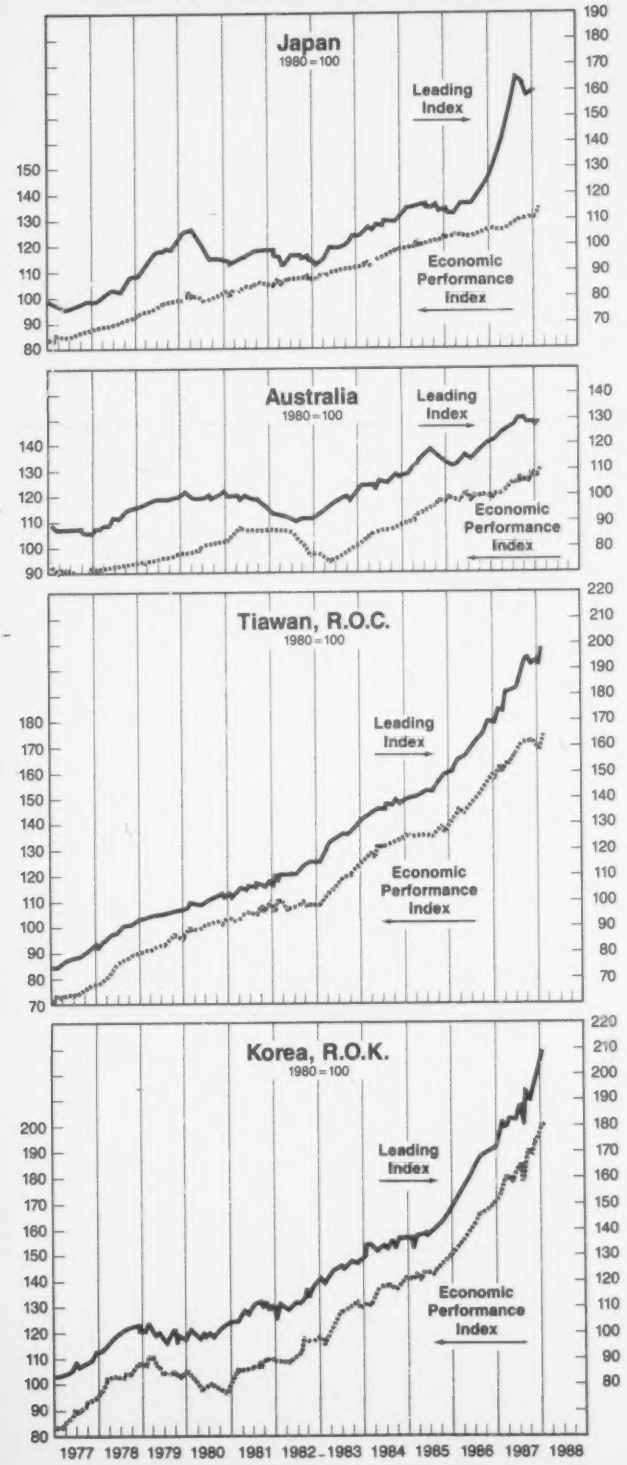

The West German economy continues to record slow progress. The leading indicators are a mixed bag, but basically the composite leading index suggests still more sluggishness ahead.

In France, the economy has been advancing steadily, despite the feeble advance of the leading index. Prospects for the coming months are not encouraging.

The United Kingdom, like France, shows rather sturdy growth in the performance index, despite torpor in the leaders. Here, too, it's difficult to project any economic vigor in the immediate future.

In Italy, the performance index has improved sharply from three months ago, but the leading index (now, as then) suggests only modest gains ahead.

## PACIFIC REGION COUNTRIES




In Japan, the economic expansion has continued to accelerate. The leading index has cooled off in recent months, after a spurt last summer that can only be described as explosive, but the outlook still seems to be favorable.

The Australian business cycle is also on a vigorous upswing. The leading indicators, although still rising, have slowed the pace of ascent. Except for the October-November drop in stock prices, the leading index would be advancing much more emphatically.

In Taiwan, both the performance and leading indexes are moving to higher levels at nearly breakneck speed.

The recent numbers for the South Korean economy are enormously impressive. Both the performance and leading indexes are rising dramatically, faster than any other nation.

# FORECASTS OF OUTPUT AND INFLATION: A LOOK AT THE RECORD

> Prediction is inseparable from life. All human activity—whether within or outside the economic sphere—inevitably reflects forecasts of the future, mingled with current pressures and past commitments. The forecasts are sometimes bold, definite, and comprehensive; more often they are hesitant, amorphous, uttered instinctively—if at all. The choice before man is not whether to engage in forecasting or to abstain from it, but whether to base expectations on 'hunches' or on lessons carefully distilled from experience.
>
> Arthur F. Burns, "Stepping Stones Toward the Future," 1947.

One important lesson carefully distilled from experience is that it is a very rare individual whose forecasts are consistently more accurate than the consensus of a group of professional forecasters. Over time, the record of the consensus is virtually always superior. Accordingly, in this issue of the *Scoreboard* we survey a multicountry record of consensus forecasts since 1982. These are forecasts of economic output (real GNP or GDP) and inflation (the consumer price index—CPI) for the United States, the United Kingdom, West Germany and Japan.

This historical record comes from *Blue Chip Economic Worldscan,* which regularly published projections of year-to-year percentage changes in the GNP and the CPI for the major countries. (Data are now provided in *The Currency Forecasters' Digest,* White Plains, New York.) More than forty prominent forecasters from many countries regularly participate in the survey from which these consensus forecasts are compiled.

How accurate have these forecasts been? The record is shown on the chart, next page. The forecasts were made in December preceding the forecast year. The average forecast error (calculated without regard to sign) for all four countries combined was 0.9 percentage points for output and 1.2 points for prices (see table).

The chart also reveals two biases in the forecasts. The first appears in the forecasts of price changes. During this period, when inflation was declining year after year, the forecasters were slow to recognize this trend, so they continually overestimated the inflation rate. The opposite bias has been observed during periods of rising inflation.

The second bias, less pronounced, is found in the output forecasts. Most forecasters stay close to the average, which makes for accurate projections when the economy is behaving moderately, but causes big errors during booms and busts. Thus most forecasts tend to fall short when the economy takes off, but they tend to be too high when the economy slumps. This bias has also been observed among U.S. forecasters over a longer historical period.

Is this a "good" forecasting record? Brilliant? Shameful? Well, it's probably "better than a blindfold and a pin," as *The Economist* once put it, but before you can decide whether a forecast record is good or bad you need a standard to measure it against. One widely used standard is "naive extrapolation," a forecast made by assuming next year's change will be the same as last year's. Then you compare the forecast errors from this extrapolation method against the errors recorded by the Worldscan consensus.

In almost every case, the consensus of forecasters proves to be superior to the extrapolation benchmark. For output growth, the average error for the consensus is 0.9 percentage points vs. 1.4 points for the benchmark. For inflation the margin is narrower: 1.2 vs. 1.5 percentage points. Looking at the record country by country, the forecasters beat the benchmark on output in all four nations, and on inflation in three nations. During these years, the extrapolative forecasts were more accurate only for inflation in Japan.

*Looking Ahead.* What are the forecasters saying now? For 1988 and 1989 the consensus calls for continued economic growth in all four countries (table below). The pace of growth is expected to slow down from last year in the United States, the United Kingdom, and Japan, but to quicken slightly in Germany. Basically the expectations for output are for more of the same sturdy but underwhelming growth the world business cycle has experienced the past few years.

On inflation, in every country the consensus projects a somewhat faster advance in the price level over the next two years than took place in 1987. That means inflation of between 4 and 5 percent in the United States and the United Kingdom, and between 1 and 2 percent in West Germany and Japan.

In short, the forecasting fraternity anticipates neither a recession nor an inflationary boom. The consensus is staying pretty close to the "same change" benchmark. Maybe they know it's tough to beat, even though the past record shows they've been doing it!

**AVERAGE FORECAST ERRORS, 1982-1987**
**(year-to-year percent changes)**

| | Output | | Inflation | |
|---|---|---|---|---|
| | Consensus | Extrapolation | Consensus | Extrapolation |
| United States | 1.0 | 2.9 | 1.4 | 2.0 |
| United Kingdom | 0.8 | 1.1 | 1.3 | 2.0 |
| West Germany | 0.8 | 1.1 | 0.9 | 1.1 |
| Japan | 0.8 | 1.4 | 1.3 | 1.0 |
| Average, four countries | 0.9 | 1.6 | 1.2 | 1.5 |

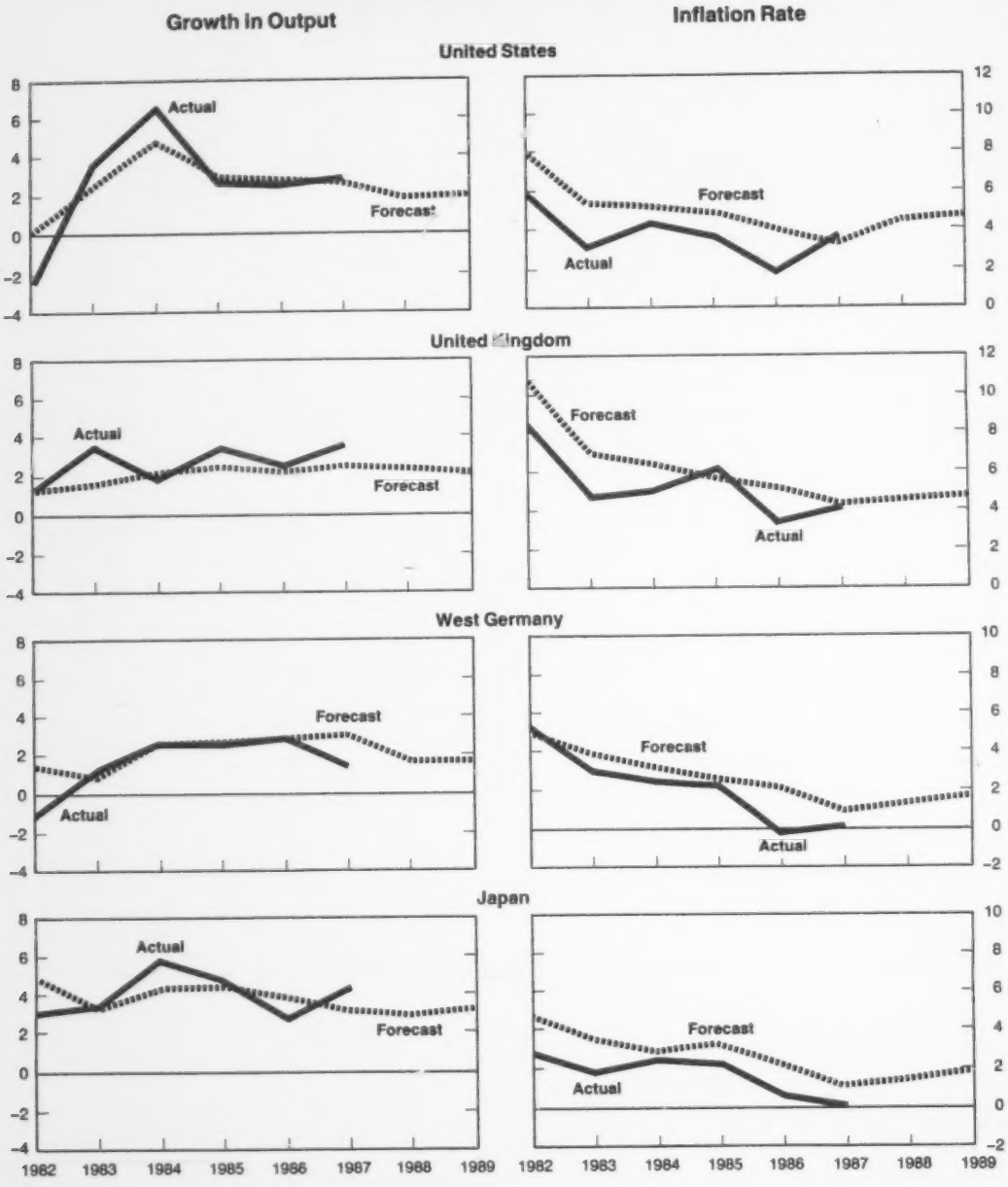
**FORECAST CHANGES IN OUTPUT AND INFLATION, 1987-89**
**(year-to-year percent changes)**

| | United States | United Kingdom | West Germany | Japan |
|---|---|---|---|---|
| | Output | | | |
| 1986-87 (Actual) | 2.9 | 3.5 | 1.4 | 4.2 |
| 1987-88 (Forecast) | 1.9 | 2.3 | 1.7 | 2.9 |
| 1988-89 (Forecast) | 2.0 | 2.2 | 1.7 | 3.2 |
| | Inflation | | | |
| 1986-87 (Actual) | 3.7 | 4.1 | 0.2 | 0.1 |
| 1987-88 (Forecast) | 4.5 | 4.5 | 1.4 | 1.4 |
| 1988-89 (Forecast) | 4.7 | 4.7 | 1.7 | 1.9 |

Source: *The Currency Forecasters Digest*

# Forecasts of Growth and Inflation

## Four Countries, 1982-89




Source: Blue Chip Economic Worldscan and The Currency Forecasters' Digest

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# 3RD QTR.

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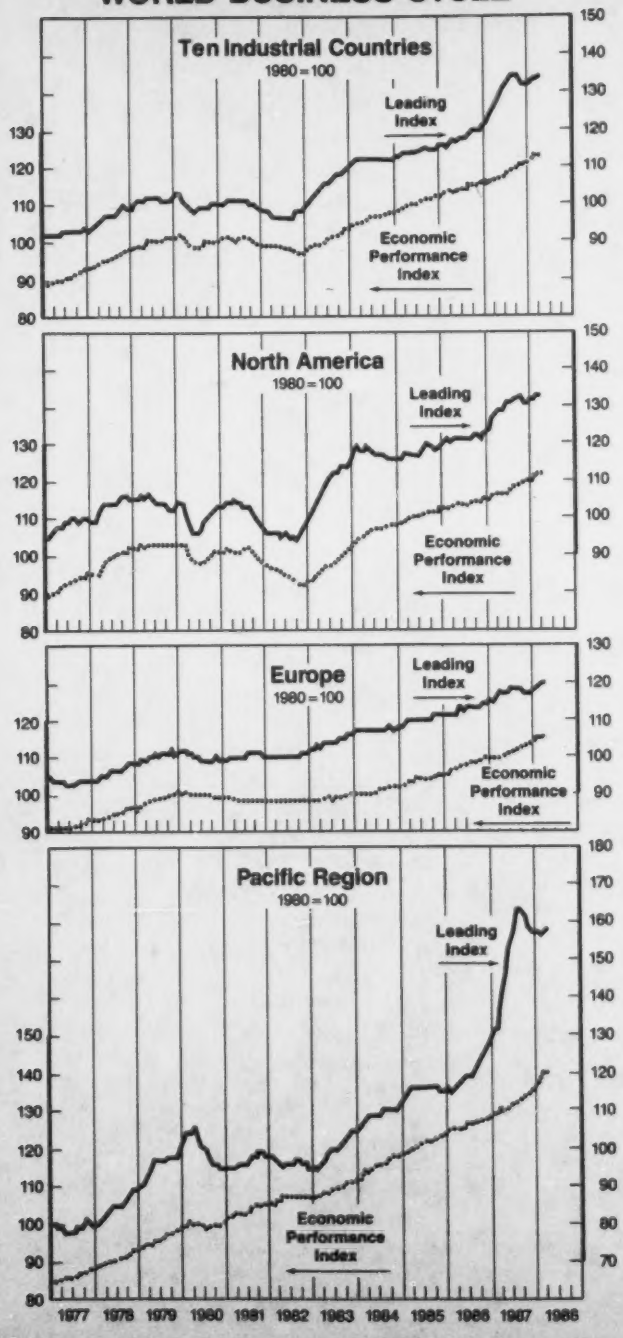
Economic Analysis Program

# International Economic Scoreboard

A Quarterly Report from The Conference Board — Third Quarter

## WORLD BUSINESS CYCLE




The long steady economic advance of the world's major countries continues apace. As of July in fact, this remarkable stretch has lasted for more than 5½ years.

As we look to the future, the leading indexes suggest further moderate growth in the months ahead. The pace of advance in these look-ahead indexes is modest for most countries. The two exceptions are Taiwan on the exuberant side and the United Kingdom on the sluggish side. The leading indexes for the other eight countries show growth rates ranging from 1 percent (U.S. and Italy) to 7 percent (West Germany and Korea). Taken together, the leading index for all ten countries shows a growth rate (3%) equal to its long-term average.

Regionally, the story is that the leading index for the Pacific area is no longer climbing faster than the leaders in North America and Europe. New data from Japan have cooled down the previous extraordinary growth rates for the leading indexes for that nation and the Pacific region. At this point, no sign of a downturn has appeared in any of the three major areas covered by our data, but—contrary to last year's pattern, when the Pacific consistently showed much better numbers and Europe looked more sluggish—the economies of all three regions appear today to be on the upgrade at the same modest pace.

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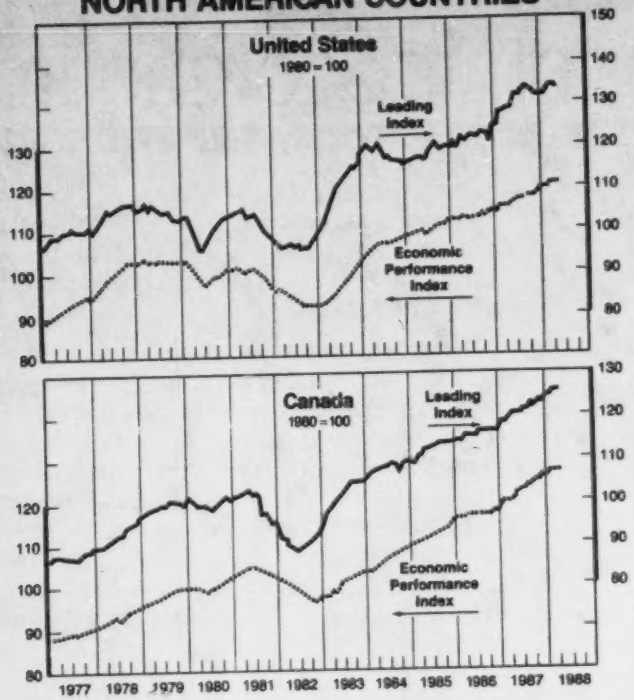
## NORTH AMERICAN COUNTRIES




The U.S economy continues to expand gradually, but the leading indicators show no sign of anything better or worse ahead. Since the end of last year both the performance and leading indexes have advanced only a single point. This tepid pattern should not be interpreted pessimistically, but neither is it consistent with the kind of optimistic prospects that most forecasters have been discussing recently.

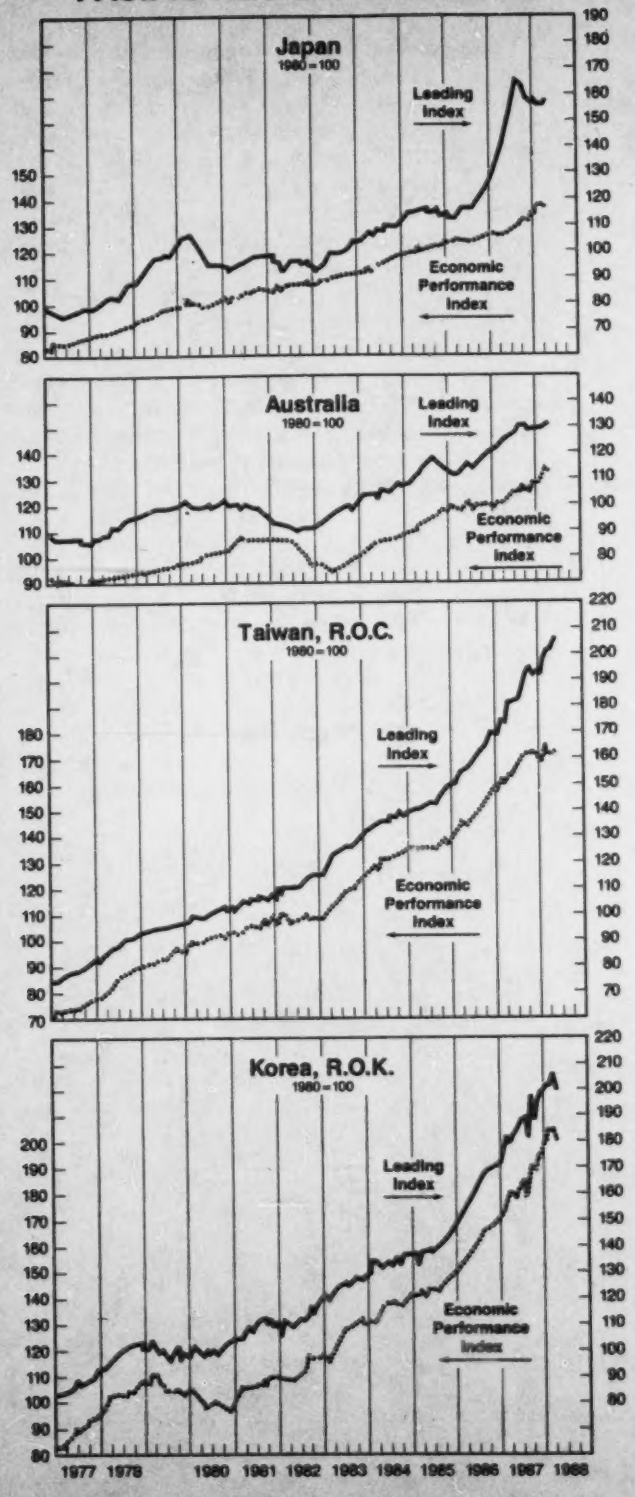
In Canada, the economy continues to move ahead a bit more vigorously than in the United States. The Canadian leading index points to further advances in economic activity in the months ahead.

### Summary Of Growth Rates, Ten Industrial Countries

| | Ten-year Growth Rate | Indexes of Economic Performance Growth Rates* | | | Leading Business Cycle Indexes Growth Rates* | | | Current Reading on the Cycle | Latest Month Covered |
|---|---|---|---|---|---|---|---|---|---|
| | 1976-86 | 6 mos. ago | 3 mos. ago | Latest month | 6 mos. ago | 3 mos. ago | Latest month | | |
| | annual rates, percent | | | | | | | | |
| Ten countries | 3 | 5 | 6 | 6 | 10 | 4 | 3 | Expansion continuing | Apr. |
| 9 countries excl. U.S. | 3 | 5 | 6 | 6 | 12 | 5 | 3 | Expansion continuing | Apr. |
| North America (2) | 3 | 5 | 5 | 5 | 7 | 3 | 3 | Expansion continuing | Apr. |
| Europe (4) | 2 | 4 | 5 | 5 | 3 | 2 | 3 | Expansion continuing | Apr. |
| Pacific Region (4) | 4 | 7 | 8 | 7 | 26 | 9 | 3 | Expansion continuing | Apr. |
| United States | 3 | 5 | 5 | 4 | 4 | 2 | 1 | Expansion continuing, leaders weak | May. |
| Canada | 3 | 7 | 6 | 5 | 4 | 6 | 4 | Expansion continuing | Apr. |
| West Germany | 2 | 3 | 3 | 3 | 4 | 5 | 7 | Expansion continuing | Apr. |
| France | 2 | 6 | 5 | 5 | 3 | 3 | 4 | Expansion continuing | Apr./May |
| United Kingdom | 2 | 6 | 7 | 7 | 3 | 2 | -1 | Expansion continuing, leaders weak | Apr. |
| Italy | 2 | 1 | 3 | 5 | 1 | -3 | 1 | Expansion continuing, leaders weak | Jan./Apr. |
| Japan | 4 | 8 | 8 | 7 | 30 | 9 | 2 | Expansion continuing | Apr. |
| Australia | 3 | 7 | 7 | 10 | 8 | 3 | 4 | Expansion continuing | Apr. |
| Taiwan, R.O.C. | 8 | 8 | 10 | 3 | 13 | 11 | 15 | Expansion continuing, leaders strong | May |
| Korea, R.O.K. | 7 | 9 | 18 | 10 | 8 | 16 | 7 | Expansion continuing | Apr. |

* Ratio of current month's index to average index over the preceding 12 months, expressed as a compound annual rate.

## PACIFIC REGION COUNTRIES




The Japanese economy continues to advance, although at a more subdued clip than the explosive growth of the second half of 1987. The leading index has turned a bit sluggish, however. It's growth rate has slowed sharply, and in fact in April the leading index was still at a level below the elevated heights reached last summer.

In Australia, the indexes continue to exhibit hearty growth. The performance index has a 10 percent growth rate at the latest reading (along with Korea the fastest of the ten countries), while the leading index is advancing at a 4 percent rate.

The business cycle in Taiwan, R.O.C., is also moving ahead, although (like Japan) more slowly this year than in 1987. Its leading index, however, is advancing rapidly in recent months, suggesting that Taiwanese growth may again accelerate.

The Korean economy continues to bound ahead, with its performance index expanding at a 10% rate and its leading index at a 7% rate.

# DO THE LEADING INDICATORS REALLY LEAD?

One of the fundamental propositions underlying the *Scoreboard's* economic indicator system is that in all market-oriented countries the indicators should be related in much the same way. Thus, for example, in every country we expect new orders to be a leading indicator of output and employment. Similarly, declines in profit margins are apt to be followed by cutbacks in capital investment outlays. And, wherever we are, an upswing in stock prices is usually an early sign of more prosperous times ahead.

Although this would seem to be a reasonable proposition, is it really supported by hard evidence? Remember the old song: "It ain't necessarily so!" This question is raised about the leading indicators every once in a while, either from within or outside the economics profession, and it's a good idea (especially for those of us who use the leaders regularly) to retain a certain healthy skepticism about this question.

When the *Scoreboard's* indexes were first compiled about a dozen years ago, we took care to check this point, and we've continued to check it since, especially when new countries have been added to the list. But now is an appropriate time to take another look.

Although not every indicator is available in every country, the basic list used to construct the leading indexes includes twelve indicators. This list was developed in 1966 based solely on U.S. information, and was used in compiling the Commerce Department's original leading index (which was revised somewhat in 1975). Nine of the original twelve indicators are still represented in the Commerce index today.

The major advantage of basing an international indicator system on a U.S. list was that the U.S. data had been studied intensely for many years and fitted a well-established analytical framework. Another important advantage was that it produced a degree of comparability across countries that might have been lost if each country's list had been developed independently. Finally, of course, it provides a check on whether the leading indicators behave similarly in different economies.

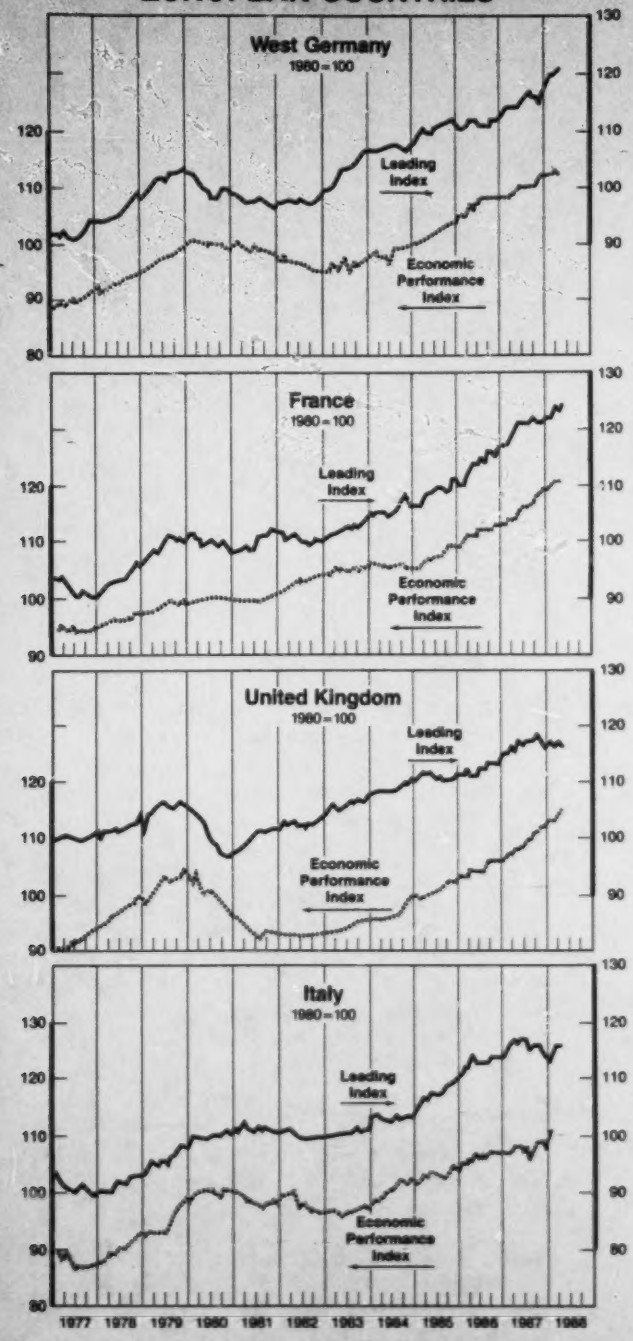
The accompanying table demonstrates that there is in fact a widespread international pattern of leads among the twelve indicators. The peak in each indicator is compared with the corresponding peak in aggregate economic activity as measured by the economic performance indexes—and their component series such as real GNP, employment, sales and income—and the number of months' lead (–) or lag (+) is recorded. From these figures we find the median or midpoint in the array of leads and lags. The median reflects the dominant tendency. In the average workweek, for example, the medians for eight countries were leads, two were coincident but none lagged. Putting the ten country records together we find that downturns in the workweek typically occurred four months before the downturn in economic activity (see last column of table).

Among the twelve indicators the only one displaying a rather weak tendency to lead is the change in business inventories. Downturns in inventory investment are frequently coincident with the downturn in overall economic activity, but seldom lag.

**Lead/Lag Record Of Twelve Leading Indicators In Ten Countries At Growth Cycle Peaks**

| Leading Indicator | Number of Countries with | | | | Percent Leads | Median Lead, Months |
|---|---|---|---|---|---|---|
| | Indicator Available | Lead | Coincident | Lag | | |
| Av. Workweek, Manufacturing | 10 | 8 | 2 | 0 | 80 | – 4 |
| New Unemployment Claims | 4 | 3 | 0 | 1 | 75 | – 1 |
| New Orders, Consumer Goods | 5 | 4 | 0 | 1 | 80 | – 2 |
| New Business Enterprises | 6 | 6 | 0 | 0 | 100 | – 8 |
| Contracts & Orders, Plant and Equipment | 7 | 5 | 0 | 2 | 71 | – 2 |
| Building Permits, Housing | 9 | 9 | 0 | 0 | 100 | – 6 |
| Change in Business Inventories | 6 | 3 | 2 | 1 | 50 | 0 |
| Change in Industrial Materials Prices | 8 | 6 | 1 | 1 | 75 | – 3 |
| Stock Price Index | 10 | 9 | 1 | 0 | 90 | – 6 |
| Corporate Profits | 6 | 6 | 0 | 0 | 100 | – 4 |
| Ratio, Price to Unit Labor Cost | 8 | 6 | 0 | 2 | 75 | – 6 |
| Change in Consumer Debt | 6 | 6 | 0 | 0 | 100 | –10 |
| Total, All Countries | 85 | 71 | 6 | 8 | 84 | – 4 |

## EUROPEAN COUNTRIES




The West German business cycle continues on its steady upswing of the past year. The latest data for the leading indicators, however, are more optimistic. In previous months, the leading index had pointed toward little or no growth ahead. The most recent statistics, now suggest somewhat faster advances in the coming months.

The French economy is doing well—also better than the numbers had suggested a few months ago. Both the performance and leading indexes continue to climb at a sturdy pace. These favorable numbers are reflected in the French stock market, which by June had recovered more than half of its late-1987 losses.

The U.K. economy has been expanding vigorously. Its performance index has the fastest growth rate (7%) in Europe. But its leading index is a different story: It is the only leading index with a negative growth rate (-1%) at the latest reading.

In Italy, the indicators show a similar pattern to the United Kingdom. The performance index is rising nicely (but note that the latest data available are for January), while the leading index continues to be sluggish.

The indicators showing the strongest tendency to lead are the number of new business enterprises, building permits for new houses, corporate profits, and change in consumer debt. These four series were leaders in every country where the series is available, and they also show the longest leads—up to a median of 10 months for the change in consumer debt.

Taking all ten countries together, the historical record for business-cycle downturns shows that the dozen leading indicators used to compile our look-ahead indexes, while a bit less than infallible, are on the whole fairly reliable (84% of the cases, to be precise). The median lead for all twelve indicators is four months. That's a shorter interval than we would like, of course, but it's a big improvement over just relying on employment, production, and the like.

The record at upturns (not shown here) is similar. For future reference we provide below the median leads of the indexes for each country at business cycle troughs as well as peaks.

**Median Lead Of Leading Indexes At Growth Cycle Peaks And Troughs, Ten Countries**

| | Peaks | Troughs |
|---|---|---|
| | (months) | |
| United States | - 2 | -2 |
| Canada | - 2 | -4 |
| United Kingdom | -10 | -9 |
| West Germany | - 7 | -2 |
| France | - 3 | -4 |
| Italy | - 9 | -6 |
| Japan | - 4 | -4 |
| Australia | - 6 | -2 |
| Taiwan, R.O.C. | - 2 | -3 |
| South Korea | - 3 | -3 |
| Ten Countries | - 4 | -4 |

The historical record is clear. The tendency of these series to lead the business cycle, in the United States and elsewhere, is unmistakable. This justifies our expectation that the *Scoreboard's* leading indexes will continue to provide reliable early warning signals about the future direction of the world economy.

## THE INTERNATIONAL ECONOMIC INDICATOR SYSTEM

This publication is designed to help readers monitor the ups and downs of the business cycle around the world. To this end, two types of index are shown for each country: an index of economic performance and a leading index. The economic performance indexes are composites of such series as real GNP, industrial production, employment and sales—what analysts call "coincident" series, because they *define* the business cycle.

The leading indexes are composites of such series as new orders, construction contracts, corporate profits and stock prices—indicators that usually anticipate changes in production and employment by several months. Thus, the indexes of economic performance tell us the current status of the business cycle, i.e., where we are, while the leading indexes tell us where the economy is headed.

Experience has shown that when the leading index begins to rise faster, it is a fairly safe rule that the economy will soon begin to rise faster too—typically after three or four months. When the leading index begins to rise more slowly or to decline, the economy is likely to follow suit shortly thereafter. (For details, see "What the Leading Indicators Indicate," *Across The Board*, April 1980 and *Business Cycles, Inflation and Forecasting*, Ballinger Publishing Co., 1983.) Considerable variation in the length of the lead is to be expected, however. Constant monitoring is needed to make effective use of the system and to get early warnings of recessions and recoveries, changes in foreign trade flows, and new inflationary trends.

The indexes were developed by Geoffrey H. Moore and Philip A. Klein, and are maintained by the Center for International Business Cycle Research at the Columbia Business School. (The U.S. indexes used here differ slightly from the indexes reported monthly by the U.S. Dept. of Commerce.) To facilitate analysis the indexes are adjusted so their long-run growth rates are equal to those in real GNP in the country concerned. These growth rates are shown in the first column of the table on page 2 of the quarterly version of the *Scoreboard*.

### For More Information

To find out more about this indicator system and the availability of detailed data for each country please address inquiries to:

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